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| 09/848,816      | 05/04/2001  | Guy B. Irving        | 067856.0213         | 7915             |

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| EXAMINER |
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DANG, KHANH NMN

| ART UNIT | PAPER NUMBER |
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2181

DATE MAILED: 10/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/848,816

Applicant(s)

IRVING ET AL.

Examiner

Khanh Dang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the diodes and registers (claim 8) must be shown or the features canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the phrase " wherein the master signal ... first communication coupling" (lines 12-19) cannot be ascertained. It is suggested that the word "not" (line 19) should be deleted.

In claim 8, "the communication signals" lacks antecedent basis.

Claims 16-18 are directed to an apparatus. However, the essential structural cooperative relationships between elements in the claims have been omitted, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-7, 9-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Hipp et al. (6,325,636).

At the outset, it is first noted that similar claims will be grouped together to avoid repetition in explanation.

As broadly drafted, these claims do not define any structure or step that differs from Hipp et al. With regard to claims 1 (as best understood), 3, 9, 16, 17, Hipp et al. discloses a midplane, comprising: a printed circuit board (also printed circuit board in Hipp et al.); a first communication coupling (276) coupled with the printed circuit board and configured to receive a first computing device (32, for example); a second communication coupling (another 276) coupled with the printed circuit board and configured to receive a second computing device (135, for example); a master signal control module (printed circuitry in midplane 34 of a server chassis 38)) coupled with the first and second communication couplings; wherein the master signal control module is

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operable to communicate control signals to the second communication coupling if the first computing device is not coupled with the first communication coupling; and wherein the master signal control module prevents communication of the control signals to the second communication coupling if the first computing device is coupled with the first communication coupling (in Hipp et al., any number of server cards can be used (for explanation purpose, only 32 and 135 are used); the midplane 34 senses or detects the presence of available slots 276 and server processing cards (32, 135, for example); if the printed circuitry in 34 does not detect 32, control signals will be routed to 132, and if the printed circuitry detects 32, control signals will be routed to 32). With regard to claim 2, the first communication coupling includes trace wiring (wiring) at least partially embedded within the printed circuit board. With regard to claim 4, the second computing device (135, for example) is coupled with a network interface card (40, for example) operable to couple the first computing device with a network. With regard to claim 5, the master signal control module (printed circuitry of 34) is operable to communicate the control signals to the first communication coupling (276) if the first computing device (32) is coupled with the first communication coupling. With regard to claims 6, 18, the midplane 34 also comprises a third communication coupling coupled (coupling of NIC 48, for example) with the printed circuit board and configured to receive a third computing device (48, for example); and wherein the master signal control module (printed circuitry in 34) is operable to communicate control signals to the third communication coupling if the first and second computing devices (32, 135) are not coupled with the first and second communication couplings, respectively. With regard to

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claim 7, the master signal control module is operable to prevent communication of the control signals to the third communication coupling (for 48, for example) if the first computing device is coupled with the first communication coupling or the second computing device is coupled with the second communication coupling. With regard to claims 1-15, it is clear that one using the device of Hipp et al. would have performed the same steps set forth in claims 10-15.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hipp et al.

Hipp et al., as explained above, discloses the claimed invention including the logic used to determine the path of the control signals. However, Hipp et al. does not disclose the use of a plurality of "diodes and register" to perform logic which determines the path of the control signals. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a "plurality of diodes and registers" in the printed circuitry of Hipp et al., since the Examiner takes Official Notice that the use a "plurality of diodes and registers" in such a logic circuitry for determining the path of control signals is old and well-known; and only involves routine skill in the art.

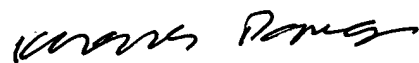
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U.S. Patent Nos. 5,428,752 to Goren et al., 5,408,616 to Murr, 5,907,689 to Tavallaci et al., and 5,987,549 to Hagersten et al. are cited as relevant art.

Any inquiry concerning this communication should be directed to Khanh Dang at telephone number 703-308-0211.



Khanh Dang  
Primary Examiner